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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,982

12/10/2003

Heidi L. Barnes

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AGILENT TECHNOLOGIES, INC.

Legal Department, DL429

Intellectual Property Administration

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EXAMINER

JONES, STEPHEN E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/733,982

Applicant(s)

BARNES ET AL.

Examiner

Stephen E. Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 16 is/are rejected.
- 7) ☒ Claim(s) 2 and 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "the edge launch connector" lacks antecedent basis and is unclear as to what specifically it is referring to of the previously recited limitations.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-6, 8-10, and 16 (insofar as claim 10 could be understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Dodart (of record).

Dodart teaches a edge connection structure including: a shielded transition which extends beyond the tip of the coaxial line (Claim 1); the insulation of the coaxial line provides support for a coaxial cable center conductor and the tip end extends away from the insulation (Claim 3); the entire connection structure is attached (i.e. integrated) (Claim 4); the device forms an airline portion where the insulation is removed and the device is impedance matched (e.g. see Fig. 2 and Col. 1, lines 16-30) (Claims 5-6); the

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portion of the shielding (cap 3) is removable for access (i.e. it can be considered a view port since access includes visibility) (Claims 8-9); the walls of the shielded block contact and are supported by the circuit board including fastening screws (Claim 10), and solder is introduced into the hole (24). Also, note that the limitation of a solder reflow process is not given any patentable weight since only the final product structure is patentable in an apparatus claim (Claim 16).

3. Claims 1, 3-6, 10, 11, and 16 (insofar as claim 10 could be understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Tamaki et al. (US 2001/0042907).

Tamaki (e.g. Figs. 7A-7C) teaches a connector including: a substrate block including shielding extending beyond the center tip of a coaxial line (Claim 1); the coaxial line structure interfaces with the substrate block in an opening of the substrate and sidewalls at the cutout; the center pin is supported in the coaxial conductor with insulation and the pin extends away from the insulation part to the tip which is soldered to the transmission line of the board (Claim 3); the entire device is attached and thus can be considered integrated (Claim 4); the device provides impedance matching and includes an airline portion between the insulation and the tip (Claim 5-6); and solder is provided at edges of the board to the shielding (Claim 11). Also, note that the limitation of a solder reflow process is not given any patentable weight since only the final product structure is patentable in an apparatus claim (Claim 16).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dodart et al. (of record) or Tamaki et al. (US 2001/0042907) in view of Nelson (of record).

Dodart and Tamaki teach connection structures as described above, but do not teach that insulation support of the coaxial line is glass (i.e. thus forming a glass to metal).

Nelson provides the general teaching of making a coaxial line with glass as the insulation (see Col. 6, lines 47-50).

It would have been considered obvious to one of ordinary skill in the art to have substituted glass such as taught by Nelson in place of the generic insulation in the Dodart or Tamaki connection structure, because it would have been a mere substitution of well-known insulation means for a coaxial line and would have provided the advantageous benefit of being an excellent dielectric material for a coaxial cable (see Nelson).

7. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki et al. (US 2001/0042907) in view of Sherman et al. (of record).

Tamaki teaches a connection structure as described above. However, Tamaki does not teach a view port and lid to for the center pin.

Sherman provides the exemplary teaching of a view port and lid to provide an access to a circuit component.

It would have been considered obvious to one of ordinary skill in the art to have provided a well-known view port with lid such as the general teaching of Sherman to the shielding of Tamaki, because it would have been a well-known means for providing the advantageous benefit of access for viewing and soldering to the interconnection in the Tamaki device.

### ***Response to Arguments***

8. Applicant's arguments filed 9/12/05 have been fully considered but they are not persuasive.

Regarding Claim 1, Applicant argues that Dodart fails to teach a shielded transition block extending beyond the tip of the coaxial cable center conductor.

This argument is not convincing. Dodart clearly teaches a transition area including a block section (e.g. 20) which is similar to the block (52) of the present invention Fig. 1A. The Dodart structure also includes additional shielding components forming an integrated barrier for radiation (e.g. items 21, 22, and cover 3) (see Col. 3, lines 14-20), and the integrated shielding barrier is clearly shown extending beyond the center conductor tip (e.g. see Fig. 2).

Regarding Claim 3, Applicant argues that since Dodart teaches a solder connection the insulation of the coaxial line does not provide support.

This argument is not persuasive since a fundamental characteristic of a coaxial conductor is the means of support between the center conductor and the outer shielding jacket. Dodart shows a well-known insulation filled coaxial cable in which the insulation provides necessary support to keep the center conductor from short circuiting with the outer conductor.

Regarding Claims 5-6, Applicant argues that Dodart does not teach a controlled impedance structure.

Applicant's argument is not persuasive. Applicant points to the Dodart prior at lack of impedance matching but fails to recognize that Dodart teaches that the Dodart structure is for circumventing or reducing these defects (see Col. 1, lines 25-30)(i.e. Dodart is impedance matching by improving constancy of the transition).

Regarding Claim 16, Applicant argues that the product by process limitation of solder re-flow is different from Dodart and allows formation of a continuous ground

current path concurrently with soldering the center pin to the center pin solder pad and provides a structure unachievable from Dodart.

Applicant's argument is not convincing because only the final product structure is patentable in an apparatus claim. Applicant has failed to provide any specific structural reasons why the final product is materially different from Dodart and has merely provided further product-by-process assertions.

Also, regarding Claim 7, Applicant argues that the diameter of the conductor is less than the external conductor (11) and does not touch the sidewall of hole 23.

Applicant's argument is not commensurate with the claims. The claims merely recite a glass to metal seal. The rejection clearly provides a coaxial cable having a glass insulator and outer metal shielding of the coaxial conductor which thus satisfies the limitation of a seal, especially since there is contact between the two materials.

9. Applicant's other arguments with respect to 103 rejections of claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

10. Claims 2 and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 571-272-

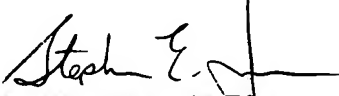
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1762. The examiner can normally be reached on Monday through Friday from 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEJ

  
**STEPHEN E. JONES**  
**PRIMARY EXAMINER**